



UNITED STATES PATENT AND TRADEMARK OFFICE

202
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|---------------------|
| 10/716,081 | 11/17/2003 | Gregg M. Sichner | ROKZ 2 00006 | 4868 |
| 7590 | 09/22/2004 | | EXAMINER | |
| FAY, SHARPE, FAGAN, MINNICH & McKEE, LLP Seventh Floor 1100 Superior Avenue Cleveland, OH 44114-2518 | | | | TSUKERMAN, LARISA Z |
| | | ART UNIT | | PAPER NUMBER |
| | | 2833 | | |

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|---------------------------------------|-------------------------|--|
| | 10/716,081 | SICHNER ET AL. | |
| | Examiner Larisa Z Tsukerman | Art Unit 2833 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 19 November 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-25 is/are rejected.

7) Claim(s) 14 and 25 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 19 November 2003 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date .

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: ____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 4 and 6 – 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Leib et al. (6634910).

In regard to claim 1, Leib et al. disclose a modular electrical device comprising:

a base 1 comprising at least one mounting location 19 comprising first and second electrical base connectors 26 (one connector 26 in portion 2, another connector 26 in portion 3, etc.);

a module 4 comprising first and second electrical module connectors 31 (see Fig. 3a) that are respectively adapted for mating with the first and second electrical base connectors 26 at respective first and second connector interfaces;

first and second seals 39 located respectively at the first and second connector interfaces, the first and second seals 39 each comprising first and second sealing elements (not marked, top and down, and side surfaces) that act respectively in first and second directions that are transverse relative to each other.

In regard to claim 2, Leib et al. disclose the first and second seals 39, each including first (side surface) and second sealing elements (top or down surfaces), are defined as one-piece constructions 39.

In regard to claim 4, Leib et al. disclose each of the first and second connector interfaces comprises:

(i) laterally adjacent surfaces of the base connector 26 and the module connector 31; and, (ii) axially adjacent surfaces of the base connector 26 and the module connector 31;

the first sealing element (side surface) is located between and sealingly engages the laterally adjacent surfaces; and, the second sealing element (top or down surface) is located between and sealingly engages the axially adjacent surfaces.

In regard to claim 6, Leib et al. disclose the first and second seals 39 are each fixedly secured to either the (base or) module 4.

In regard to claim 7, Leib et al. disclose both of the first and second seals 39 are connected to the module 4 (see Fig.3a).

In regard to claim 8, Leib et al. disclose the first and second module connectors 31 comprise respective first and second female sockets, and wherein the first and second seals 39 are located respectively in the first and second sockets (see Col.5, lines 37-43).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910) in view of Werner et al. (5795173).

In regard to claim 9, Leib et al. disclose most of the claimed invention, except for it did not discuss that the first and second seals 39 are molded into the first and second sockets 31. Werner et al. teach that seal 6 is molded or is an O elastomer ring. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use molded seal 6 of Werner in structure of Leib et al. as both are well known used equivalents.

In regard to claims 11, Leib et al. disclose (see Col.5, lines 37-43) the first and second sockets 31 each **inherently** define flow passages, and wherein the first and second seals 39 are molded into the flow passages so as to be mechanically anchored in the first and second sockets 31, respectively.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910) in view of Reed (4707043).

Leib et al. disclose most of the claimed invention, except for the first and second seals 39 are defined together as a one-piece construction and are interconnected by a web. Reed teaches the first and second seals 45 and 46 are defined together as a one-piece construction and are interconnected by a web 30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a one-piece double seal of Reed in structure of Leib et al. in order to simplify assembly.

Claims 12 - 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910) in view of Benda et al. (6241562) and McInnes (4795857).

In regard to claim 12, Leib et al. disclose most of the claimed invention, except for the module 4 comprises an outer housing and an inner housing nested within the outer housing, and wherein the inner housing **is both mechanically and adhesively** secured to the outer housing.

1) Benda et al. teach that module housing 10 comprises an outer housing 50 and an inner housing 30 nested within the outer housing 50, and wherein the inner housing 30 is **mechanically** secured to the outer 50 housing. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a two-piece module housing of Benda et al. in structure of Leib et al. in order to repair module.

2) McInnes teaches that housing 10, 10 comprises an outer housing 10 and an inner housing 10 nested within the outer housing, and wherein the inner housing is **adhesively** secured to the outer housing (see Abstract and Col.3, lines 30-34) to make a waterproof seal between half-sections of the housing. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for the same reason to connect a two-piece module housing of by using adhesive as taught by McInnes.

In regard to claim 13, Leib et al. modified by Benda et al. and McInnes, disclose one of the inner 30 (and outer) housings comprises projecting tabs 105,115 and the other of the (inner and) outer housings 50 comprises recesses 56 that receive the projecting tabs 105,115 when the inner 30 housing is nested within the outer housing 50.

Claims 3, 5, 15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910) in view of Makita (6443764).

In regard to claims 3 and 5, Leib et al. disclose most of the claimed invention, except for the first sealing element comprises a radially projecting lip, and wherein the second sealing element comprises an axially projecting lip and each seal comprise an L-shaped cross-section. Makita teaches a seal 36 with lips 37 and 39 face in both (radial and axial) directions, comprising an L-shaped cross section, to provide better sealing qualities. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for the same reason to use seal ring of Makita in structure of Leib et al.

In regard to claim 15, Leib et al. disclose an electrical module 4 comprising:

a housing (not marked);
first and second electrical connectors 31 (see Fig. 3a); and,
first and second seals 39 located adjacent the first and second electrical
connectors 31, and first and second seals 39 comprises first sealing lip 38 that project
outwardly in first direction.

However, Leib et al. do not disclose that each of the first and second seals 39
comprises second sealing lip that project outwardly in second direction that is
transverse relative to first direction. Makita teaches a seal 36 with lips 37 and 39 face in
both directions to provide better sealing qualities. Therefore, it would have been obvious
to one having ordinary skill in the art at the time the invention was made and for the
same reason to use seal-ring of Makita in structure of Leib et al.

In regard to claim 16, Leib et al., modified by Makita, disclose the first and second
seals 36 are each defined as a one-piece thermoplastic elastomeric construction.

In regard to claim 17, Leib et al. disclose the first and second connectors 31 are
female socket connectors (see Col. 5, lines 37-43) in which the first and second seals
39 are respectively located.

In regard to claim 18, Leib et al., modified by Makita, discloses the first sealing lip
35/39 of each of the first and second seals 36 projects axially, and wherein the second
sealing lip 37 of each of the first and second seals 36 projects radially.

In regard to claim 19, Leib et al. modified by Makita disclose the first and second seals
36 each comprise an L-shaped cross-section.

Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910) in view of in view of Makita (6443764), as applied to claim 15, and further in view of Werner et al. (5795173).

Leib et al. modified by Makita disclose most of the claimed invention, except for it did not discuss that the first and second seals 39 are molded into the first and second sockets 31. Werner et al. teach that seal 6 is molded or is an O elastomer ring. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use molded seal 6 of Werner in structure of Leib et al. as both are well known used equivalents.

In regard to claim 22, Leib et al. disclose (see Col.5, lines 37-43) the first and second **sockets 31** each **inherently** define flow passages, and wherein the first and second seals 39 are molded into the flow passages so as to be mechanically anchored in the first and second sockets 31, respectively.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910), Makita (6443764) and Warner (5795173), as applied to claim 15 above, and further in view of Reed (4707043).

Leib et al., modified by Makita and Warner, include most of the claimed invention, except for the first and second seals 39 are each defined as a one-piece thermoplastic elastomeric construction and are interconnected by a web. Reed teaches the first and second seals 45 and 46 are defined together as a one-piece construction. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention

was made to use a one-piece double seal of Reed in structure of Leib et al. in order to simplify assembly.

Claims 23 - 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leib et al. (6634910) and Makita (6443764) as applied to claim 15 above, and further in view of Benda et al. (6241562) and McInnes (4795857).

In regard to claim 23, Leib et al. modified by Makita, disclose most of the claimed invention, except for the module 4 comprises an outer housing and an inner housing nested within the outer housing, and wherein the inner housing **is both mechanically and adhesively** secured to the outer housing.

1) Benda et al. teach that module housing 10 comprises an outer housing 50 and an inner housing 30 nested within the outer housing 50, and wherein the inner housing 30 is **mechanically** secured to the outer 50 housing. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a two-piece module housing of Benda et al. in structure of Leib et al. in order to repair module.

2) McInnes teaches that housing 10, 10 comprises an outer housing 10 and an inner housing 10 nested within the outer housing, and wherein the inner housing is **adhesively** secured to the outer housing (see Abstract and Col.3, lines 30-34) to make a waterproof seal between half-sections of the housing. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and for the same reason to connect a two-piece module housing of by using adhesive as taught by McInnes.

In regard to claim 24, Leib et al. and Makita, modified by Benda et al. and McInnes, disclose one of the inner 30 (and outer) housings comprises projecting tabs 105,115 and the other of the (inner and) outer housings 50 comprises recesses 56 that receive the projecting tabs 105,115 when the inner 30 housing is nested within the outer housing 50.

Allowable Subject Matter

Claims 14 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regard to claim 14, 25 the outer housing comprises a continuously extending groove and the inner housing comprises a projecting wall that is received in the groove, wherein the projecting wall is adhesively secured in the groove.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z Tsukerman whose telephone number is (571)-272-2015. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on (571)-272-2800 ex. 33. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT. 09/18/2004


THO D. TA
PRIMARY EXAMINER